REMARKS

By this Amendment, Applicants amend claims 1 and 20-23. Claims 1, 13-17, and 19-23 are pending in this application.

In the Final Office Action,[1] the Examiner rejected claims 1, 13-17, and 19-23 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement; and rejected claims 1, 13-17, and 19-20 under 35 U.S.C. § 103(a) as being unpatentable over Hsu (U.S. Patent No. 5,631,970) in view of Hancock et al. (U.S. Patent No. 6,202,023).

Applicants respectfully traverse the rejection of claims 1, 13-17, and 19-23 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. In particular, the Examiner contends that the word "boundary" is not defined in the specification and, as a result, the claims are not enabled. Applicants disagree. First, Applicants note that the specification and originally-filed claims use the terminology "boundary." In one example, the specification states that "the boundaries of the selected region are determined, using Map1's set of georeferencing functions, in terms of longitude and latitude." See specification,[2] page 9, lines 13-15. Second, Applicants note that the claims must be given their broadest reasonable interpretation consistent with the specification and with the interpretation that those skilled in the art would reach. See MPEP § 2111. In view of the enabling disclosure describing a determination of boundaries of a region, and the clear meaning that one skilled in the art would afford to

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[1] The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

[2] In making the various references to the specification herein, it is to be understood that Applicants are in no way intending to limit the scope of the claims to the exemplary embodiments described in the specification. Rather, Applicants expressly affirm that they are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation and applicable case law.

the term, Applicants respectfully request the Examiner to withdraw the rejection of claims 1, 13-17, and 19-23 under 35 U.S.C. § 112, first paragraph.

Applicants respectfully traverse the rejection of claims 1, 13-17, and 19-20 under 35 U.S.C. § 103(a) as being unpatentable over Hsu (U.S. Patent No. 5,631,970) in view of Hancock et al. (U.S. Patent No. 6,202,023). To establish a proper *prima facie* case of obviousness under 35 U.S.C. § 103(a), the Examiner must meet each of the following three requirements. First, the reference taken alone, or references combined, must teach or suggest each and every element recited in the claims. *See* MPEP § 2143.03 (8th ed. 2001). Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. *See* MPEP § 2143.01 (8th ed. 2001). Third, a reasonable expectation of success must exist. *See* MPEP § 2143.02 (8th ed. 2001). Moreover, each of these requirements must be found in the prior art, and not be based on applicant's disclosure. *See* MPEP § 2143 (8th ed. 2001).

Claim 1 recites a method of synchronizing map images including, among other things, "*selecting a boundary* of a geographic region, which is present on both a first map and a second map, in the first map" and "automatically adjusting a boundary of the second map to correspond to the selected boundary in the first map *when the boundary is selected in the first map*" (emphasis added). The applied references, Hsu and Hancock, whether taken individually or in combination, do not disclose or suggest at least these elements of claim 1.

Hsu discloses "a method of identifying and/or extracting an object from multiple information sources, such as maps and images." See col. 2, lines 34-37. A "user [may] integrate information freely from multiple sources." See col. 2, lines 37-38. Furthermore, "[e]xtracted objects may be classified using spatial relationship principles and languages." See col. 10, lines 59-65. In the Final Office Action, the Examiner contends Hsu "implements several layers of information" and "if a person manipulates an area in one of the layers or maps, the corresponding coordinates would be in the same area associated with [a] manipulated layer, i.e., similar to what ... invention claims." See page 4. The Examiner appears to equate combining or overlaying layers of data with the elements recited in claim 1. Applicants respectfully disagree with the Examiner's characterization because the teachings in Hsu directed to combining or overlaying layers of data do not teach or suggest "*selecting a boundary* of a geographic region, which is present on both a first map and a second map, in the first map" and "automatically adjusting a boundary of the second map to correspond to the selected boundary in the first map *when the boundary is selected in the first map*," as recited in claim 1 (emphasis added).

Furthermore, the Examiner contends that FIG. 2 of Hsu "illustrates five different layers ... [which are] geographically similar to each other." See Final Office Action, page 3. Applicants point out that FIG. 2 of Hsu shows a Geographical Information System (GIS) data dictionary. "A data dictionary is a list that maintains, for each coverage, the names of attributes (e.g., size, shape, texture, intensity, location, etc.) and a description of attribute values." See col. 4, lines 20-27. Applicants submit that the "data dictionary" of Hsu, which is merely a collection of metadata describing

attributes of a polygon, does not disclose or suggest Applicants' claimed method of synchronizing map images, including, "*selecting a boundary* of a geographic region, which is present on both a first map and a second map, in the first map" and "automatically adjusting a boundary of the second map to correspond to the selected boundary in the first map *when the boundary is selected in the first map*," as required by claim 1 (emphasis added).

The Examiner also contends that FIG. 3, step 104 of Hsu teaches aspects of Applicant's claimed invention and, in particular, alleges "step 104 illustrates processing of the layers (i.e. maps)." See Final Office Action, page 3. Applicants again disagree that these aspects of Hsu teach or suggest claim 1. As taught by Hsu, "level 1 preprocessor 104 is used to convert vector data to image (raster) data, to correct geometric and spectral errors, to perform resolution matching, to zoom, rotate and scale (so as to align the separate images with one another), and to filter and transform images, if necessary." See col. 9, lines 32-37. While Hsu teaches that vector data is converted to image data, Hsu does not teach or suggest Applicants' claimed method of synchronizing map images, including, "*selecting a boundary* of a geographic region, which is present on both a first map and a second map, in the first map" and "automatically adjusting a boundary of the second map to correspond to the selected boundary in the first map *when the boundary is selected in the first map*," as required by claim 1 (emphasis added).

The Examiner further contends that since Hsu "implements several layers of information similar to fig. 3, then if a person manipulates an area in one of the layers or maps, the corresponding coordinates would be in the same area associated with [the]

manipulated layer, i.e. similar to what claim invention claims." See Final Office Action, page 4. The Examiner appears to equate combining or overlaying layers of data with the elements recited in claim 1. The Examiner alleges "if a person manipulates an area in one of the layers or maps," it would be similar to what Applicants' claim. See id. Even if the Examiner's allegation were correct, which Applicants do not concede, there is no teaching or suggestion in Hsu that any such manipulation occurs. The Examiner's speculation regarding what might happen is inappropriate because there is no teaching or suggestion in the Hsu reference for "*selecting a boundary* of a geographic region, which is present on both a first map and a second map, in the first map" and "automatically adjusting a boundary of the second map to correspond to the selected boundary in the first map *when the boundary is selected in the first map*," as recited in claim 1 (emphasis added).

Claim 1 also requires steps of "converting first map coordinates designating the boundary of the geographic region selected on the first map into geographic coordinates using a georeferencing function of the first map" and "converting the geographic coordinates to corresponding second map coordinates designating the boundary of the geographic region on the second map using a georeferencing function of the second map." The Examiner alleges that Hsu teaches these elements. Applicants again disagree.

By contrast, the Hsu system "accepts multiple data sources 100 for one common geographic area. The sources can be existing maps, geocoded, socio-economic data such as census tracks, and various images such as LANDSAT or SPOT satellite imagery." See col. 8, lines 54-61. Further, once the incoming data is received, "the

goal of preprocessing is to transform the incoming observed data into a format in which objects are readily extractable." See col. 9, lines 27-31. "If images are properly aligned, however, preprocessing levels 1 and 2 need not be performed at all. If the images are "raw" ... preprocessing is required." See col. 9, lines 29-33. As taught by Hsu, "level 1 preprocessor 104 is used to convert vector data to image (raster) data," among other purposes. However, converting vector data to image data does not constitute or suggest "converting *first map coordinates* designating *the* boundary of the geographic region selected on the first map into *geographic coordinates* using a georeferencing function of the first map" and "converting *the* geographic coordinates to *corresponding second map coordinates* designating *the* boundary of the geographic region on the second map using a georeferencing function of the second map," as required by claim 1. Applicants note that the claimed "first map coordinates" are converted to "geographic coordinates" and then "the geographic coordinates" are converted to "corresponding second map coordinates" that designate the selected boundary. The Examiner appears to have given no weight to the antecedents of the claim terminology, which interrelate the elements. In that regard, Applicants point out that the Examiner must show that the applied references teach or suggest *all* claim limitations. *See* M.P.E.P. § 2143.03. The Examiner has not met that burden. Further, while the Examiner contends that conversion of vector data to raster data occurs in Hsu, nothing in Hsu discloses or suggests using georeferencing functions to performed the claimed conversions for designating a boundary.

Still further, the Examiner has also not shown that Hsu teaches or suggests using a "georeferencing function of the first map" and using a "georeferencing function of the

second map," as required by claim 1. While Hsu discloses that images are aligned during preprocessing and, during that preprocessing, vector data is converted to image data, Applicants point out that the stated purpose of that conversion is "to correct geometric and spatial errors, to perform resolution matching, to zoom, rotate and scale (so as to align the separate images with one another). See col. 9, lines 31-37. Further, Hsu fails to disclose how that conversion occurs and, moreover, does not teach or suggest using a "georeferencing function of the first map" and using a "georeferencing function of the second map," as required by claim 1. Instead, according to Hsu, images are aligned so that the images share the same coordinate system, but Hsu does not teach using the claimed georeferencing functions.

In that regard, Applicants' specification teaches that "t]he preferred embodiment provides a system and method for coordinated manipulation of multiple displayed maps, even when the maps use different internal coordinate systems" (emphasis added). Specification at page 4, lines 9-12.[3] While the Examiner may not be required "to interpret claims in applications in the same manner as a court would interpret claims in an infringement suit," the Examiner is required to interpret the claims in a reasonable manner in light of the specification. See MPEP § 2111. Had the Examiner interpreted claim 1 in light of the specification, the rejection would not stand because Hsu does not teach or suggest using a "georeferencing function of the first map" and using a "georeferencing function of the second map," as required by claim 1.

[3] In making reference to the specification, it is to be understood that Applicants are in no way intending to limit the scope of the claims to the exemplary embodiments described in the specification. Rather, Applicants expressly affirm that they are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation and applicable case law.

For at least the above reasons, Hsu does not teach all of the elements of claim 1. Furthermore, Hancock does not disclose or suggest the elements that are missing from Hsu. Hancock discloses "a system and method for providing services over a computer network" such as "information that is specific to the user's geographic location." See col. 2, lines 62-67. The Examiner applies Hancock, alleging that the reference "discloses allowing location addresses to be converted to other global addressing systems." See Final Office Action, page 5. Even if the Examiner's allegation is correct, which Applicants do not concede, converting an address from a location address format to a global address format does not teach or suggest claim 1. In particular, Hancock does not disclose or suggest the claimed method of synchronizing map images including at least steps of "*selecting a boundary* of a geographic region, which is present on both a first map and a second map, in the first map," and "automatically adjusting a boundary of the second map to correspond to the selected boundary in the first map *when the boundary is selected in the first map*," as recited in claim 1 (emphasis added). Therefore, a combination of Hsu and Hancock does not teach or suggest all of the elements of claim 1 for at least this reason.

Moreover, Hancock also does not disclose or suggest "converting first map coordinates designating the boundary of the geographic region selected on the first map into geographic coordinates using a georeferencing function of the first map" and "converting the geographic coordinates to corresponding second map coordinates designating the boundary of the geographic region on the second map using a georeferencing function of the second map," as required by claim 1, for the following reasons.

The Examiner quotes Hancock at column 10, lines 48-65, which discusses converting a universal location address (ULA) to a World Geodetic System 1984 (WGS-84) address. See Final Office Action, page 5. For example, the Hancock system uses a "reference point" that is located at the "approximate center" of a city located in a district to convert from a ULA to a WGS-84 address. See col. 10, lines 53-54. Since the reference point has a known WGS-84 address, by using an offset of a ULA from that reference point, along with the district rotation and district scale, the ULA may be converted to a WGS-84 address. See col. 10, lines 57-62. Thus, Hancock teaches converting from an address format (i.e., ULA format) to another address format (i.e., WGS-94 format). However, converting addresses from one format to another does not teach or suggest "converting first map coordinates designating the boundary of the geographic region selected on the first map into geographic coordinates using a georeferencing function of the first map" and "converting the geographic coordinates to corresponding second map coordinates designating the boundary of the geographic region on the second map using a georeferencing function of the second map," as required by claim 1. Thus, Hancock fails to remedy the deficiencies of Hsu.

For at least the above reasons, Hsu and Hancock, whether taken individually or in combination, do not disclose or suggest all of the elements of claim 1 and a *prima facie* case of obviousness has not been established. Therefore, the Examiner should withdraw the rejection of claim 1 under 35 U.S.C. § 103(a) and the rejection of dependent claims 13-17 and 19, which depend from claim 1.

Independent claims 20-23, while of a different scope from claim 1 and each other, include recitations similar to those of allowable claim 1. Accordingly, Hsu and

Hancock, whether taken individually or in combination, do not disclose or suggest all of the elements of claims 20-23 for at least the above reasons. Accordingly, a *prima facie* case of obviousness has not been established and the Examiner should also withdraw the rejection of claims 20-23 under 35 U.S.C. § 103(a).

CONCLUSION

In view of the foregoing remarks, Applicants respectfully request the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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